

## CLAIMS

Therefore, having thus described the invention, at least the following is claimed:

- 1 1. A method for managing process control in a graphical user interface, the  
2 method comprising the steps of:  
3 displaying a plurality of objects on a graphical user interface, each of the  
4 objects corresponding to one or more steps in a sequential process;  
5 in response to the proper object in the sequential process being selected and  
6 the corresponding step being successfully completed, visually distinguishing the  
7 object to indicate that the corresponding step has been successfully completed; and  
8 in response to one of the objects corresponding to a previously completed step  
9 being selected and successfully completed, performing the following steps:  
10 determining whether any other previously completed steps are  
11 dependent on the changes made in the previously completed step; and  
12 visually distinguishing the objects corresponding to the other  
13 previously completed steps to indicate that they are to be completed again.
- 1 2. The method of claim 1, wherein the other previously completed steps are  
2 completed again in a predefined order.

1 3. The method of claim 2, further comprising the step of visually distinguishing  
2 the objects corresponding to the other previously completed steps to indicate that they  
3 have been completed.

1 4. The method of claim 1, wherein the steps of:  
2 visually distinguishing the object to indicate that the corresponding step has  
3 been successfully completed; and  
4 visually distinguishing the objects corresponding to the other previously  
5 completed steps to indicate that they are to be completed again;  
6 comprise displaying another object adjacent to the object.

1 5. The method of claim 1, wherein the steps of:  
2 visually distinguishing the object to indicate that the corresponding step has  
3 been successfully completed; and  
4 visually distinguishing the objects corresponding to the other previously  
5 completed steps to indicate that they are to be completed again;  
6 comprise modifying the display of the object.

1 6. The method of claim 1, wherein the steps in the sequential process are related  
2 to controlling an automatic x-ray inspection system configured to detect  
3 manufacturing defects in printed circuit boards.

1 7. The method of claim 1, further comprising the step of successfully completing  
2 the corresponding steps in the sequential process.

1 8. The method of claim 7, wherein the step of successfully completing the  
2 corresponding steps in the sequential process occurs via a separate window of the  
3 graphical user interface.

1 9. A computer program embodied in a computer-readable medium for managing  
2 process control in a graphical user interface, the computer program comprising logic  
3 configured to:

4 display a plurality of objects on a graphical user interface, each of the objects  
5 corresponding to one or more steps in a sequential process;

6 in response to the proper object in the sequential process being selected and  
7 the corresponding step being successfully completed, visually distinguish the object to  
8 indicate that the corresponding step has been successfully completed; and

9 in response to one of the objects corresponding to a previously completed step  
10 being selected and successfully completed, perform the following steps:

11 determine whether any other previously completed steps are dependent  
12 on the changes made in the previously completed step; and

13 visually distinguish the objects corresponding to the other previously  
14 completed steps to indicate that they are to be completed again.

1 10. The computer program of claim 9, wherein the logic is further configured to  
2 enable a user to complete the other previously completed steps again in a predefined  
3 order.

1 11. The computer program of claim 9, wherein the logic is further configured to  
2 visually distinguish the objects corresponding to the other previously completed steps,  
3 after they have been successfully completed again, to indicate that they have been  
4 completed again.

1 12. The computer program of claim 9, wherein the logic is further configured to:  
2 visually distinguish the object to indicate that the corresponding step has been  
3 successfully completed and visually distinguish the objects corresponding to the other  
4 previously completed steps to indicate that they are to be completed again by  
5 displaying another object adjacent to the corresponding object.

1 13. The computer program of claim 9, wherein the logic is further configured to:  
2 visually distinguish the object to indicate that the corresponding step has been  
3 successfully completed and visually distinguish the objects corresponding to the other  
4 previously completed steps to indicate that they are to be completed again by  
5 modifying the display of the corresponding object.

1 14. The computer program of claim 9, wherein the steps in the sequential process  
2 are related to controlling an automatic x-ray inspection system configured to detect  
3 manufacturing defects in printed circuit boards.

1 15. A system for managing process control in a graphical user interface, the  
2 system comprising:

3 logic configured to:

4 display a plurality of objects on a graphical user interface, each of the  
5 objects corresponding to one or more steps in a sequential process;

6 in response to the proper object in the sequential process being selected  
7 and the corresponding step being successfully completed, visually distinguish  
8 the object to indicate that the corresponding step has been successfully  
9 completed; and

10 in response to one of the objects corresponding to a previously  
11 completed step being selected and successfully completed, perform the  
12 following steps:

13 determine whether any other previously completed steps are dependent  
14 on the changes made in the previously completed step; and

15 visually distinguish the objects corresponding to the other previously  
16 completed steps to indicate that they are to be completed again;

17 a processing device configured to implement the logic; and

18 a display device configured to support the graphical user interface.

1 16. The system of claim 15, wherein the logic is further configured to enable a  
2 user to complete the other previously completed steps again in a predefined order.

1 17. The system of claim 15, wherein the logic is further configured to visually  
2 distinguish the objects corresponding to the other previously completed steps, after  
3 they have been successfully completed again, to indicate that they have been  
4 completed again.

1 18. The system of claim 15, wherein the logic is further configured to:  
2 visually distinguish the object to indicate that the corresponding step has been  
3 successfully completed and visually distinguish the objects corresponding to the other  
4 previously completed steps to indicate that they are to be completed again by  
5 displaying another object adjacent to the corresponding object.

1 19. The system of claim 15, wherein the logic is further configured to:  
2 visually distinguish the object to indicate that the corresponding step has been  
3 successfully completed and visually distinguish the objects corresponding to the other  
4 previously completed steps to indicate that they are to be completed again by  
5 modifying the display of the corresponding object.

- 1    20.    The computer program of claim 15, wherein the steps in the sequential process
- 2    are related to controlling an automatic x-ray inspection system configured to detect
- 3    manufacturing defects in printed circuit boards.